WHAT IS CLAIMED IS:

1. A fuse assembly comprising:

a fuse element prepared in a substantially non-linear form, the fuse element comprising at least two terminals, the at least two terminals comprising a first terminal and a second terminal;

at least two conductive endcaps being coupled to the first terminal and the second terminal; and

a fuse body comprising a dielectric material adapted to substantially enclose the fuse element between the at least two endcaps, wherein

the fuse element being capable of experiencing arcing as a result of an opening being created in at least a portion of the fuse element,

the opening having two ends, the dielectric material forces arcing between the two ends to traverse a path consistent with the non-linear form.

2. The fuse assembly of claim 1, wherein the non-linear form of the fuse element is substantially a curve.

3. The fuse assembly of claim 1, wherein at least a portion of the dielectric material is positioned between an area bounded by the fuse element in a substantially non-linear form and a line connecting the two ends.

4. The fuse assembly of claim 3, wherein the at least portion of the dielectric material comprises a superior dielectric material.

5. The fuse assembly of claim 3, wherein the path is consistent with a shape of the at least portion of dielectric material.

6. The fuse assembly of claim 3, wherein the arcing causes formation of a conductive path along a surface of the at least portion of the dielectric material.

7. The fuse assembly of claim 6, wherein the conductive path is comprised of carbon.

8. The fuse assembly of claim 6, wherein the conductive path reduces an insulating value of the dielectric material.

9. The fuse assembly of claim 1, wherein at least a portion of the dielectric material is positioned between an area bounded by the prepared fuse element and a line connecting the at least two endcaps.

10. The fuse assembly of claim 9, wherein the at least portion of the dielectric material is positioned to impede arcing between the at least two endcaps.

11. The fuse assembly of claim 9, wherein the at least portion of the dielectric material comprises a superior dielectric material.

12. The fuse assembly of claim 1, wherein forcing the arcing between the two ends to traverse the path introduces an increased amount of dielectric separation.

13. The fuse assembly of claim 12, wherein the increased amount of dielectric separation is caused by an introduction of at least a portion of the dielectric material within a perimeter of the path.

14. The fuse assembly of claim 12, wherein the path traversed is substantially a curve and forcing the arcing to follow the path along the curve introduces the increased amount of dielectric separation.

15. The fuse assembly of claim 1, wherein the opening is caused by passing an excessive current through the fuse element, the excessive current causing a meltdown of at least a portion of the fuse element.

16. The fuse assembly of claim 15, wherein the meltdown causes formation of two ends of the at least the portion of the fuse element.

17. The fuse assembly of claim 1, wherein creating the opening in the fuse element causes an arc, the arc being formed between the two ends.

18. A method of reducing footprint of a fuse element, the method comprising:

preparing the fuse element in a substantially non-linear form, the fuse element comprising at least two terminals, the at least two terminals comprising a first terminal and a second terminal, the footprint being reduced by adjusting distance between the first terminal and the second terminal;

coupling the fuse element between at least two conductive endcaps coupled to the first and second terminals;

enclosing the fuse element in a dielectric material.

19. The method of claim 18, wherein the non-linear form of the fuse element is substantially a curve.

20. The method of claim 18, wherein at least a portion of the dielectric material is positioned between an area bounded by the prepared fuse element and a line connecting the at least two endcaps.

21. The method of claim 20, wherein the at least portion of the dielectric material comprises a superior dielectric material.

22. The method of claim 20, wherein the substantially non-linear form is consistent with a shape of the at least portion of dielectric material.

23. The method of claim 18, wherein

the fuse element is capable of experiencing arcing as a result of an opening being created in at least a portion of the fuse element,

the opening having two ends,

the dielectric material forces arcing between the two ends to traverse a path consistent with the non-linear form.

24. The method of claim 23, wherein

the arcing causes formation of a conductive path along a surface of at least portion of the dielectric material,

the at least a portion of the dielectric material is positioned between an area bounded by the prepared fuse element and a line connecting the two ends.

25. The method of claim 24, wherein the conductive path is comprised of carbon.

26. The method of claim 24, wherein the conductive path reduces an insulating value of the dielectric material.

27. The method of claim 24, wherein the forced arcing between the two ends to traverse the path introduces an increased amount of dielectric separation.

28. The method of claim 27, wherein the increased amount of dielectric separation is caused by an introduction of at least a portion of the dielectric material within a perimeter of the path.

29. The method of claim 23, wherein creating the opening is caused by passing an excessive current through the fuse element, the excessive current causing a meltdown of at least a portion of the fuse element.

30. The method of claim 29, wherein the meltdown causes formation of two ends of said at least the portion of the fuse element.

31. The method of claim 18 further comprising:

for a defined footprint adjusting height of the fuse element to adjust at least a portion of the dielectric material separating the at least two endcaps.

32. The method of claim 31, wherein said at least portion of the dielectric material separating the at least two endcaps is in a form of a plate.

33. A method of increasing dielectric separation between at least two terminals of a fuse element that experience arcing, the method comprising:

preparing the fuse element in a substantially non-linear form;

coupling the fuse element between at least two conductive endcaps, the at least two conductive endcaps being coupled to the corresponding at least two terminals;

enclosing the fuse element in a dielectric material.

34. The method of claim 33, wherein

the at least two terminals comprise a first terminal and a second terminal,

the dielectric material separating the first terminal and the second terminal is in a form of a plate.

35. The method of claim 33, wherein the non-linear form of the fuse element is substantially a curve.

36. The method of claim 33, wherein at least a portion of the dielectric material is positioned between an area bounded by the prepared fuse element and a line connecting the at least two endcaps.

37. The method of claim 36, wherein the at least portion of the dielectric material comprises a superior dielectric material.

38. The method of claim 36, wherein the substantially non-linear form is consistent with a shape of the at least portion of dielectric material.

39. The method of claim 33, wherein

the arcing causes formation of a conductive path along a surface of at least portion of the dielectric material,

the at least a portion of the dielectric material is positioned between an area bounded by the prepared fuse element and a line connecting the at least two endcaps.

40. The method of claim 39, wherein the conductive path is comprised of carbon.

41. The method of claim 39, wherein the conductive path reduces an insulating value of the dielectric material.

42. The method of claim 33, wherein

the fuse element experiences arcing as a result of an opening being created in at least a portion of the fuse element,

the opening having two ends,

the dielectric material forces arcing between the two ends to traverse a path consistent with the non-linear form.

43. The method of claim 42, wherein the forced arcing between the two ends to traverse the path introduces an increased amount of dielectric separation.

44. The method of claim 43, wherein the increased amount of dielectric separation is caused by an introduction of at least a portion of the dielectric material within a perimeter of the path.

45. The method of claim 42, wherein the path traversed is substantially a curve and the forced arcing follows the path along the curve thereby introducing the increased amount of dielectric separation.

46. The method of claim 42, wherein creating the opening is caused by passing an excessive current through the fuse element, the excessive current causing a meltdown of said at least the portion of the fuse element.

47. The method of claim 46, wherein the meltdown causes formation of two ends of said at least the portion of the fuse element.

48. The method of claim 42, wherein creating the opening in said at least the portion of the fuse element causes an arc, the arc being formed between the two ends.

49. A fuse comprising:

a fuse element prepared in a substantially non-linear form, wherein at least a portion of the fuse element is capable of experiencing arcing as a result of excessive current flowing through the fuse element;

means for increasing a dielectric separation to impede the arcing.

50. The fuse of claim 49, wherein the fuse further comprises:

the fuse element comprising at least two terminals, the at least two terminals comprising a first terminal and a second terminal; and

at least two conductive endcaps, the at least two endcaps being coupled to the at least two terminals.

51. The fuse of claim 50, wherein the fuse element is enclosed by a dielectric material, wherein the dielectric material is adapted to substantially enclose the fuse element between the at least two endcaps.

52. The fuse of claim 51, wherein the means for increasing the dielectric separation comprises positioning at least a portion of the dielectric material between an area bounded by the prepared fuse element and a line connecting the at least two endcaps.

53. The fuse of claim 51, wherein the means for increasing the dielectric separation comprises forcing the arcing between the two endcaps to traverse a path consistent with a form of the dielectric material between the at least two endcaps.

54. The fuse of claim 52, wherein the at least portion of the dielectric material comprises a superior dielectric material.

55. The fuse of claim 52, wherein the arcing causes formation of a conductive path along a surface of the at least portion of the dielectric material.

56. The fuse of claim 52, wherein the at least portion of the dielectric material is positioned to impede arcing between the at least two endcaps.

57. The fuse of claim 55, wherein the conductive path is comprised of carbon.

58. The fuse of claim 55, wherein the conductive path reduces an insulating value of the dielectric material positioned between the at least two endcaps.

59. The fuse of claim 49, wherein the excessive current causes a meltdown of at least a portion of the fuse element.

60. The fuse of claim 59, wherein the meltdown causes formation of two ends of the at least portion of the fuse element, the arcing occurring between the two ends.

61. The fuse of claim 60, wherein the means for increasing the dielectric separation comprises forcing the arcing between the two ends to traverse a path consistent with the non-linear form.

62. The fuse of claim 60, wherein the means for increasing the dielectric separation comprises positioning at least a portion of the dielectric material between an area bounded by the prepared fuse element and a line connecting the two ends.

63. The fuse of claim 62, wherein the at least portion of the dielectric material comprises a superior dielectric material.

64. The fuse of claim 62, wherein the at least portion of the dielectric material is positioned to impede arcing between the two ends.

65. The fuse of claim 62, wherein the arcing causes formation of a conductive path along a surface of the at least portion of the dielectric material.

66. The fuse of claim 65, wherein the conductive path is comprised of carbon.

67. The fuse of claim 65, wherein the conductive path reduces an insulating value of the dielectric material positioned between the two ends.

68. The fuse of claim 49, wherein the non-linear form of the fuse element is substantially a curve.

69. A method of impeding arcing, said arcing occurring across a gap formed in a fuse element by said arcing, the method comprising:

creating the gap in the fuse element, the gap being created as a result of heat generated in response to excessive current flowing through the fuse element, the fuse element being prepared in a substantially non-linear form; and

forcing the arcing across the gap to traverse a path consistent with the non-linear form.

70. The method of claim 69, wherein the non-linear form of the fuse element is substantially a curve.

71. The method of claim 69, wherein the fuse element is enclosed by a dielectric material.

72. The method of claim 71, wherein at least a portion of the dielectric material is positioned between an area bounded by the fuse element prepared in the substantially non-linear form and a line connecting two ends of the fuse element, the two ends being formed by the opening.

73. The method of claim 72, wherein the at least portion of the dielectric material comprises a superior dielectric material.

74. The method of claim 72, wherein the path is consistent with a shape of the at least portion of dielectric material.

75. The method of claim 72, wherein the arcing causes formation of a conductive path along a surface of the at least portion of the dielectric material.

76. The method of claim 75, wherein the conductive path is comprised of carbon.

77. The method of claim 75, wherein the conductive path reduces an insulating value of the dielectric material.

78. The method of claim 69, wherein the fuse element comprises at least two terminals, the at least two terminals comprising a first terminal and a second terminal.

79. The method of claim 78, wherein the first terminal and the second terminal are coupled to at least two conductive endcaps.

80. The method of claim 79, wherein at least a portion of the dielectric material is positioned between an area bounded by the prepared fuse element and a line connecting the at least two endcaps.

81. The method of claim 80, wherein the at least portion of the dielectric material is positioned to impede arcing between the at least two endcaps.

82. The method of claim 80, wherein the at least portion of the dielectric material comprises a superior dielectric material.

83. The method of claim 80, wherein the path is consistent with a shape of the at least portion of dielectric material.

84. The method of claim 80, wherein the arcing causes formation of a conductive path along a surface of the at least portion of the dielectric material.

85. The method of claim 84, wherein the conductive path is comprised of carbon.

86. The method of claim 84, wherein the conductive path reduces an insulating value of the dielectric material.

87. The method of claim 69, wherein forcing the arcing across the gap to traverse the path introduces an increased amount of dielectric separation.

88. The method of claim 87, wherein the increased amount of dielectric separation is caused by an introduction of a dielectric material within a perimeter of the path.

89. The method of claim 87, wherein the path traversed is substantially a curve and forcing the arcing to follow the path along the curve introduces the increased amount of dielectric separation.

90. The method of claim 69, wherein the heat generated causes a meltdown of at least a portion of the fuse element.

91. The method of claim 90, wherein the meltdown causes creation of the gap.